

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. - 8. (Canceled)

9. (Previously Presented) An ellipsometer measurement apparatus for determining a thickness of a film applied on a substrate, comprising:

a light source emitting a beam;

a transmitting optical system conveying the beam to an incidence point on the substrate, the substrate reflecting the beam from the incidence point;

a photodetector device;

a receiving optical system conveying the reflected beam to the photodetector device, the receiving optical system including an analyzer, a polarization direction of the beam and of the analyzer being modified in time relative to one another;

an evaluation device evaluating intensity changes in the reflected beam and determining the film thickness as a function of the intensity changes; and

an angle measurement device sensing an angle of the reflected beam relative to a tangential plane that does not intersect the substrate in an area of the incidence point, the evaluation device determining the film thickness as a function of the sensed angle.

10. (Previously Presented) The measurement apparatus according to claim 9, wherein the angle measurement device includes a photodetector unit that is position-sensitive in at least one of an X and Y direction, an angle of reflection being calculated from position data and distance data with an evaluation stage.

11. (Currently Amended) An ellipsometer measurement apparatus for determining a thickness of a film applied on a substrate, comprising:

a light source emitting a beam;
a transmitting optical system conveying the beam to an incidence point on the substrate, the substrate reflecting the beam from the incidence point;
a photodetector device;
a receiving optical system conveying the reflected beam to the photodetector device, the receiving optical system including an analyzer, a polarization direction of the beam and of the analyzer being modified in time relative to one another;
an evaluation device evaluating intensity changes in the reflected beam and determining the film thickness as a function of the intensity changes; and
an angle measurement device sensing an angle of the reflected beam relative to a tangential plane that does not intersect the substrate at the incidence point, the evaluation device determining the film thickness as a function of the sensed angle, wherein:
the angle measurement device includes a photodetector unit that is position-sensitive in at least one of an X and Y direction, an angle of reflection being calculated from position data and distance data with an evaluation stage, and
the intensity changes and the position data are sensed with a same photodetector.

12. (Previously Presented) The measurement apparatus according to claim 10, wherein the photodetector unit includes two position-sensitive photodetectors arranged at a distance from the incidence point in a beam path of the reflected beam, the angle of reflecting being calculated based on differing positions of the reflected beam on the two position-sensitive photodetectors.

13. (Previously Presented) The measurement apparatus according to claim 12, further comprising:

a beam splitter arranged in the beam path of the reflected beam in front of the two position-sensitive photodetectors, each of the two position-sensitive photodetectors receiving a partial beam of the reflected beam.

14. (Previously Presented) The measurement apparatus according to claim 9, further comprising:

a converging lens arranged in front of the photodetector device.

15. (Canceled)

16. (Previously Presented) The measurement apparatus according to claim 9, wherein the transmitting optical system includes a polarizer and a $\lambda/4$ plate in a beam path of the beam, and wherein one of the polarizer and the analyzer is arranged in rotationally driven fashion about an axis normal to a surface of the one of the polarizer and the analyzer.